

OIPE

## RAW SEQUENCE LISTING

DATE: 08/23/2001

PATENT APPLICATION: US/09/924,654

TIME: 14:28:43

Input Set : A:\PC0049CIPSEQLIST.txt

Output Set: N:\CRF3\08162001\I924654.raw

ENTERED

2 <110> APPLICANT: Goold, Richard D.  
 3 Akerblom, Ingrid E.  
 4 Seilhamer, Jeffrey J.  
 5 Coleman, Roger  
 7 <120> TITLE OF INVENTION: TUMOR SUPPRESSOR  
 9 <130> FILE REFERENCE: PC-0049 CIP  
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/924,654  
 C--> 12 <141> CURRENT FILING DATE: 2001-08-07  
 14 <160> NUMBER OF SEQ ID NOS: 21  
 15 <170> SOFTWARE: PERL Program  
 17 <210> SEQ ID NO: 1  
 18 <211> LENGTH: 373  
 19 <212> TYPE: DNA  
 20 <213> ORGANISM: Homo sapiens  
 22 <220> FEATURE:  
 23 <221> NAME/KEY: misc\_feature  
 24 <223> OTHER INFORMATION: Incyte ID No: PANC1A  
 26 <220> FEATURE:  
 27 <221> NAME/KEY: unsure  
 28 <222> LOCATION: 20, 303, 340-341  
 29 <223> OTHER INFORMATION: a, t, c, g, or other  
 31 <400> SEQUENCE: 1  
 W--> 32 gtacggagggt gaggtttgtn accgcgattc taagagggtg gcttttagtc cctccagacc 60  
 33 tcggcttttag tgcgtgtctcc gcttttyttt caccttcaca gaggttcgtg tcttcctaaa 120  
 34 agaagggtttt attgggagggt aaagggtcaat gcgtaggggt agagtaagat gtcttatggt 180  
 35 gaaattraag gtaaattctt gggacctaga gaagaagtaa cgagttagcc acgctgtaaa 240  
 36 aaattgaagt caaccacaga gtcgtatggt tttcacaatc atagtaatgc tgattttcac 300  
 W--> 37 agnatccaag agaaaactgg aaatgattgg gtcctgtgn ncatcattga tgtcagagga 360  
 38 catagttatt tgc 373  
 40 <210> SEQ ID NO: 2  
 41 <211> LENGTH: 321  
 42 <212> TYPE: DNA  
 43 <213> ORGANISM: Homo sapiens  
 45 <220> FEATURE:  
 46 <221> NAME/KEY: misc\_feature  
 47 <223> OTHER INFORMATION: Incyte ID No: PANC1B  
 49 <220> FEATURE:  
 50 <221> NAME/KEY: unsure  
 51 <222> LOCATION: 16, 277, 288, 309  
 52 <223> OTHER INFORMATION: a, t, c, g, or other  
 54 <400> SEQUENCE: 2  
 W--> 55 gtgagggtttg ttaccncgat tctgagaggt gggcttttag tccctccaga cctcggtttt 60  
 56 agtgcgtgtct cccgmttttct ttcacettca cagagatgct ttatggtgaa attgaaggta 120  
 57 aattcttggg acctagwgaa gaagtaacga gtgagccacg ctgtaaaaaa ttgaagtcaa 180  
 58 ccacagagtc gtatgttttt cacaatcata gtaatgctga ttttcacagw atccaagaga 240  
 W--> 59 aaactggaaa tgatttgggt ccctgtgacc atcattnatg tcagagggna tagttaattt 300  
 W--> 60 gcaggaganc aaaaatcaaa a 321

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62 <210> SEQ ID NO: 3  
63 <211> LENGTH: 5035  
64 <212> TYPE: DNA  
65 <213> ORGANISM: Homo sapiens  
67 <220> FEATURE:  
68 <221> NAME/KEY: misc\_feature  
69 <223> OTHER INFORMATION: Incyte ID No: 496071CB1  
71 <400> SEQUENCE: 3

72 ccgcgattct gagaggtggg ctttttagtcc ctccagacct cggetttagt gctgtctccg 60  
73 cttttctttc accttcacag aggttcgtgt cttcctaaaa gaaggtttta ttgggaggtta 120  
74 aaggtcaatg cgtaggggta gagtaagatg tcttatgggtg aaattgaagg taaattcttg 180  
75 ggacctagag aagaagtaac gagtgagcca cgctgtaaaa aattgaagtc aaccacagag 240  
76 tcgtatgttt ttcaacaatca tagtaatgct gattttcaca gaatccaaga gaaaactgga 300  
77 aatgattggg tccctgtgac catcattgat gtcagaggac atagtatttt gcaggagaac 360  
78 aaaatcaaaa ctacagattt gcatagacct ttgcatgatg agatgcctgg taatagacca 420  
79 gatgttattg aatccattga ttcacaggtt ttacaggaag cacgtcctcc attagtatcc 480  
80 gcagacgatg agatatatag cacaagtaaa gcatttatag gacccattta caaacccccct 540  
81 gagaaaaaga aacgtaatga agggaggaat gaggcacatg ttctaaatgg tataaatgac 600  
82 agaggaggac aaaaagagaa acagaaattt aactctgaaa aatcagagat tgacaatgaa 660  
83 ttattccagt tttaaaaaga aattgaagag cttgaaaagg aaaaagatgg ttttgagaac 720  
84 agttgtaaaag aatctgaacc ttctcaggaa caatttggtc cattttatga gggtcataat 780  
85 aatgggtctct taaaacctga tgaagaaaag aaagatctta gtaataaagc tatgccatca 840  
86 cattgtgatt atcagcagaa cttggggaat gagccagaca aatatccctg taatggacaa 900  
87 gtaataccta cattttgtga cacttcattt acttctttca ggctgaaat gcagtcagta 960  
88 tatcctttta tagtgcccta tgggtccccct cttcccagtt tgaactatca tttaaacatt 1020  
89 cagagattca gtggtccacc aaatccacca tcaaattatt tccaagccca agatgactct 1080  
90 cagatacaaa atggatatta tgtaataaat tgtcatgtta actggaattg catgactttt 1140  
91 gatcagaaca atgaatatac tgactgtagt gagaatagga gtagtgttca tccctctgga 1200  
92 aatggctgca gtatgcaaga tcgatatgtg agtaatggtt tctgtgaagt cagagaaaga 1260  
93 tgctggaaaag atcattgtat ggacaagcat aatggaacag acaggtttgt gaaccagcag 1320  
94 tttcaagagg aaaagttaaa taaattgcag aagttaactta ttcttttaag aggtctgcct 1380  
95 ggttctggga aaacaacatt gtctcgaatt ctgcttggtc agaatcgtga tggcattgtg 1440  
96 ttcagcactg atgactattt tcaccatcaa gatgggtaca ggtataatgt taatcaactt 1500  
97 ggtgatgcc atgactggaa ccagaacaga gcaaaacaag ctatcgatca gggaagatct 1560  
98 ccagttataa tagataacac taatatacaa gcttgggaaa tgaagccata tgtggaagtg 1620  
99 gccataggaa aaggatacag agtagagttt catgaacctg aaacttggtg gaaatttgat 1680  
100 cctgaagaat tagaaaagag gaataaacat ggtgtgtctc gaaagaagat tgctcagatg 1740  
101 ttggatcggt atgaatatca aatgtccatt tctattgtaa tgaattcagt ggaaccatca 1800  
102 cacaaaagca cacaaagacc tcctcctcca caggggagac agaggtgggg aggctctctt 1860  
103 ggctcacata atcgtgtctg tgtcacaaat aatcattaaa ttagctattt tcagctaaca 1920  
104 catttgttgt tgcaattgaa aaagagttag tgagcctgtc ttggagttaa agtagtttca 1980  
105 aataaaaaaa ggctacagtg cctcacaaag gatgttccca gcaagttgtt taaattccca 2040  
106 gcaagttgtt aaagtgtaaa taaaaatata tgaaattgta ttttaaatgt ttttatattc 2100  
107 tcttgttgta atactcttg ctgttatgga agcacctgag taatagagtg gtgggtaaga 2160  
108 gctaagatgt ttttctacaa tcgaatttta aactaattta tctattttat agacactatt 2220  
109 gaacagtttt ttaattgttc atatctaaat ctaacttttc ataaaacttt acggtttttc 2280  
110 cttcactacc ttaaatatgc aagaaatact gacttggtat agggtagctt agttttctct 2340  
111 attcattaga caggtaaaat tatatttcag ctgattgatc tgtgtgacaa aattatttct 2400  
112 tagctataat cagcacatca cttagttcaa acaaaattcc ccagcaaagt ttagatagta 2460

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113 ggtatatcaa tcacctgggg agttttcttc ataatatgca tattcatctt gtaatgcata 2520
114 catagttatc atcctccttc tcaaccatc tccctaacc ccatgcttg ccagttcttg 2580
115 aagggataaa gtgattctaa taatgtttta cttctctctg ttcaatttaa tgtgatataa 2640
116 ttctagtata aaaatatttt ggacagttgc ttaacatggt cataagagga tttgtactat 2700
117 agaatatctt ctagtactaa tttttctgta gagcaaatta ttttctctc actggatagt 2760
118 ttttagatgt gtttcttcat ataaaattaa aaactgagat ggaattcatt tcagagggtct 2820
119 tgtcattcat cccctgcctt caaaccaagc ttacctaga ctaacctaga taattaagca 2880
120 tttctctttg caacatgagg aaaaaaacac tactacttct cttaatacca ttgttaccaa 2940
121 tgtcttctga agaataatttc ttcaacagtt ttgatttact tttttgattt actcttttta 3000
122 ggggaaaaaa aaccagcta attacaatgc tgtcttaaaa attagcatt atgattcttt 3060
123 atatgtttta cataatattt tgtggccttt aagctttctc ctaaaccagc acatcttgaa 3120
124 tcccatagta tttctttggt ttaaaacctt ttgtatttcc ttcaacttt agatattctc 3180
125 tcacatcttt atattacttt ttaagtgtc aggccaaaaa ctagattcac tgctatcaac 3240
126 aaggtctttg ttacattgcc ttttagtga taagaatatg attttatttg tactattcag 3300
127 tgtgttaaac atttgaatga atattacct tatctgttt aatacgtgtg tttgtatata 3360
128 tttgttcac ttaactacga tgaagaata tgctaattca tgttttgtgt gtaaagtgtat 3420
129 attgtataca tatacacatc ttcactatg ttttcatata ttcttttatt tcagagtaat 3480
130 acttgttggt gtttggactt gtgtttctaa gtattttatt ctgtagatta gcgcagtttg 3540
131 aaaattgtac aaaaggattt cttttggga cagggtgaaac aactcttagg tagactatat 3600
132 gtccctttct ttctgtctgt cttcataaac ttaggagtaa tagtactata aatttagctt 3660
133 tttggccggg cacggtggct aacacctgta atcccagcac tttgggaggc cgagggtggg 3720
134 ggatcgctg aggtcaggag tttgagacca gcctgtctga ccggtgaaac cacatctcta 3780
135 ctgaaatac agggatcact ggggtgtgtg gtgtgtgcct gtggtcccag ctacttggga 3840
136 ggctgagggg ggggagtcgc ttgggcctgg gaggcggagt ttgcggtggg cagagggtgc 3900
137 gccacttgca ctccagcctg tgagacagag tgagactcct tctcaaaaaa aaaaattagt 3960
138 ttttttaaaa taacttttac atttattttt ggaaagtaaa gtattacctt tgggagaaac 4020
139 attatgagga aatatgtgca tattaagttt attttaattt ccagatttta ttatagactt 4080
140 gtcttcatct cctagtctct actactaaat aataattcag tttagatca ttcgtcatta 4140
141 ccaattaatt ttttacatta taatgttagc caactactgt tgcatacag agtcccaaat 4200
142 aaataaataa atcttactga ggctggaag ctaacattct tactcagaat taaacaaaca 4260
143 aggtcttgtc ctgctacgtg ggctggatgg agtgtgtgtg cgtgatcata gcttgctgaa 4320
144 acctgaaact cctaggctca agaggctctc ctttctcagc atcccaagta gctgggactt 4380
145 caagcatgca ctgccacacc tggcttattt tgcattaaaa aatttttttt gtagggatgg 4440
146 ggtcttgctt tgtttccag actggtcttg tactcctggc ctccaggtgat cctcccaaag 4500
147 tgtctgggatt acaggcatga gccactgcac cagctttagt gatttttttt tttttttttg 4560
148 agacagagtc tttctctgga tcacccaagc tggagtgcag tggcatgatg tcagctcgtc 4620
149 gcaacctccg cctcccagg tccaggcatt ctctgcctc agcctcccga gtggctggga 4680
150 ttggaggcac tcgccaccat acctggataa tttttgtatt tttggtagag acagtgtttc 4740
151 accgtgttgg ccaggcagg tctgaactcc tgaccccagg tgatccgcct gccttggcct 4800
152 cccaaagtgc tgggtgggat tacaggcatg agccaccaca ccaggcctag ttggtttttt 4860
153 taaagtggaa aaacagttgt tttcctaaac attgtggcta attttaatta aaaacagaat 4920
154 ggaggaatga atatgcagt gaaatactaa aatcactgtt taaagtcatt gcttggtgtt 4980
155 taaaaatcta taaaaatgtg aaatttaaaa aaaaaaaaaa aaaaaa 5035
157 <210> SEQ ID NO: 4
158 <211> LENGTH: 583
159 <212> TYPE: PRT
160 <213> ORGANISM: Homo sapiens
162 <220> FEATURE:
163 <221> NAME/KEY: misc_feature

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164 <223> OTHER INFORMATION: Incyte ID No: 496071CD1
166 <400> SEQUENCE: 4
167 Met Ser Tyr Gly Glu Ile Glu Gly Lys Phe Leu Gly Pro Arg Glu
168 1 5 10 15
169 Glu Val Thr Ser Glu Pro Arg Cys Lys Lys Leu Lys Ser Thr Thr
170 20 25 30
171 Glu Ser Tyr Val Phe His Asn His Ser Asn Ala Asp Phe His Arg
172 35 40 45
173 Ile Gln Glu Lys Thr Gly Asn Asp Trp Val Pro Val Thr Ile Ile
174 50 55 60
175 Asp Val Arg Gly His Ser Tyr Leu Gln Glu Asn Lys Ile Lys Thr
176 65 70 75
177 Thr Asp Leu His Arg Pro Leu His Asp Glu Met Pro Gly Asn Arg
178 80 85 90
179 Pro Asp Val Ile Glu Ser Ile Asp Ser Gln Val Leu Gln Glu Ala
180 95 100 105
181 Arg Pro Pro Leu Val Ser Ala Asp Asp Glu Ile Tyr Ser Thr Ser
182 110 115 120
183 Lys Ala Phe Ile Gly Pro Ile Tyr Lys Pro Pro Glu Lys Lys Lys
184 125 130 135
185 Arg Asn Glu Gly Arg Asn Glu Ala His Val Leu Asn Gly Ile Asn
186 140 145 150
187 Asp Arg Gly Gly Gln Lys Glu Lys Gln Lys Phe Asn Ser Glu Lys
188 155 160 165
189 Ser Glu Ile Asp Asn Glu Leu Phe Gln Phe Tyr Lys Glu Ile Glu
190 170 175 180
191 Glu Leu Glu Lys Glu Lys Asp Gly Phe Glu Asn Ser Cys Lys Glu
192 185 190 195
193 Ser Glu Pro Ser Gln Glu Gln Phe Val Pro Phe Tyr Glu Gly His
194 200 205 210
195 Asn Asn Gly Leu Leu Lys Pro Asp Glu Glu Lys Lys Asp Leu Ser
196 215 220 225
197 Asn Lys Ala Met Pro Ser His Cys Asp Tyr Gln Gln Asn Leu Gly
198 230 235 240
199 Asn Glu Pro Asp Lys Tyr Pro Cys Asn Gly Gln Val Ile Pro Thr
200 245 250 255
201 Phe Cys Asp Thr Ser Phe Thr Ser Phe Arg Pro Glu Trp Gln Ser
202 260 265 270
203 Val Tyr Pro Phe Ile Val Pro Tyr Gly Pro Pro Leu Pro Ser Leu
204 275 280 285
205 Asn Tyr His Leu Asn Ile Gln Arg Phe Ser Gly Pro Pro Asn Pro
206 290 295 300
207 Pro Ser Asn Ile Phe Gln Ala Gln Asp Asp Ser Gln Ile Gln Asn
208 305 310 315
209 Gly Tyr Tyr Val Asn Asn Cys His Val Asn Trp Asn Cys Met Thr
210 320 325 330
211 Phe Asp Gln Asn Asn Glu Tyr Thr Asp Cys Ser Glu Asn Arg Ser
212 335 340 345
213 Ser Val His Pro Ser Gly Asn Gly Cys Ser Met Gln Asp Arg Tyr

```

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Input Set : A:\PC0049CIPSEQLST.txt

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```

214          350          355          360
215 Val Ser Asn Gly Phe Cys Glu Val Arg Glu Arg Cys Trp Lys Asp
216          365          370          375
217 His Cys Met Asp Lys His Asn Gly Thr Asp Arg Phe Val Asn Gln
218          380          385          390
219 Gln Phe Gln Glu Glu Lys Leu Asn Lys Leu Gln Lys Leu Leu Ile
220          395          400          405
221 Leu Leu Arg Gly Leu Pro Gly Ser Gly Lys Thr Thr Leu Ser Arg
222          410          415          420
223 Ile Leu Leu Gly Gln Asn Arg Asp Gly Ile Val Phe Ser Thr Asp
224          425          430          435
225 Asp Tyr Phe His His Gln Asp Gly Tyr Arg Tyr Asn Val Asn Gln
226          440          445          450
227 Leu Gly Asp Ala His Asp Trp Asn Gln Asn Arg Ala Lys Gln Ala
228          455          460          465
229 Ile Asp Gln Gly Arg Ser Pro Val Ile Ile Asp Asn Thr Asn Ile
230          470          475          480
231 Gln Ala Trp Glu Met Lys Pro Tyr Val Glu Val Ala Ile Gly Lys
232          485          490          495
233 Gly Tyr Arg Val Glu Phe His Glu Pro Glu Thr Trp Trp Lys Phe
234          500          505          510
235 Asp Pro Glu Glu Leu Glu Lys Arg Asn Lys His Gly Val Ser Arg
236          515          520          525
237 Lys Lys Ile Ala Gln Met Leu Asp Arg Tyr Glu Tyr Gln Met Ser
238          530          535          540
239 Ile Ser Ile Val Met Asn Ser Val Glu Pro Ser His Lys Ser Thr
240          545          550          555
241 Gln Arg Pro Pro Pro Pro Gln Gly Arg Gln Arg Trp Gly Gly Ser
242          560          565          570
243 Leu Gly Ser His Asn Arg Val Cys Val Thr Asn Asn His
244          575          580
246 <210> SEQ ID NO: 5
247 <211> LENGTH: 359
248 <212> TYPE: DNA
249 <213> ORGANISM: Homo sapiens
251 <220> FEATURE:
252 <221> NAME/KEY: misc_feature
253 <223> OTHER INFORMATION: Incyte ID No: 071178.assembled
255 <220> FEATURE:
256 <221> NAME/KEY: unsure
257 <222> LOCATION: 20, 303, 340-341
258 <223> OTHER INFORMATION: a, t, c, g, or other
260 <400> SEQUENCE: 5
W--> 261 gtacggaggt gaggtttgtn accgcgattc taagaggtgg gcttttagtc cctccagacc 60
262 tcggcttttag tgctgtctcc gcttttyttt caccttcaca gaggttcgtg tcttcctaaa 120
263 agaaggtttt attgggaggt aaaggtcaat gcgtaggggt agagtaagat gtcttatggt 180
264 gaaattraag gtaaattcctt gggacctaga gaagaagtaa cgagtgaacc acgctgtaaa 240
265 aaattgaagt caaccacaga gtcgtatgtt tttcacaatc atagtaatgc tgattttcac 300
W--> 266 agnatccaag agaaaactgg aaatgattgg gtccctgtgn ncatcattga tgtcagagg 359

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Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

## VERIFICATION SUMMARY

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Input Set : A:\PC0049CIPSEQLIST.txt

Output Set: N:\CRF3\08162001\I924654.raw

L:1 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:2 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:32 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:37 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:55 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:59 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:60 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:261 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:266 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:283 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:284 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:306 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:307 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:308 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:325 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:327 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:328 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:329 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:346 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9  
L:349 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9  
L:350 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9  
L:414 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:418 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:422 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:475 M:283 W: Missing Blank Line separator, <220> field identifier OK  
L:543 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18